ACE-168

INFORMATION SHEET ON DEHYDRATED ONIONS

The Dehydration Committee
U.S. Bureau of Agricultural Chemistry and Engineering
U.S. Department of Agriculture

FORM:

Dehydrated onions are made in the form of slices (chips) and powder.

The dehydrated products must be prepared under modern sanitary conditions, and in accordance with best commercial practices and Federal and State Pure Food Laws and Regulations.

Powdered onions are made by passing the smaller chips through a hammer mill. In the past, it is probable that the bulk of the production was in the powdered form, most of which was used as a condiment by manufacturers of soups, sausage and other products. At present the demand is for dried slices which after rehydration are to be used like fresh onions. Since in the manufacture of slices considerable amounts of small pieces occur, supplies of powdered onions will be available for the usual markets. It is probable that government purchases will consist of both slices and powder, in a ratio of about four to one, so that producers of slices will have a market for at least a part of the powder which occurs as a by-product of the manufacture of slices.

VARIETIES:

The general complaint concerning dehydrated onions is their lack of pungency. The Ebenezer, White Portugal, Red Creole, and White Creole varieties are very strong onions and make excellent dried products. Other onions such as the Early Yellow Globe, Mountain Danvers, Ohio Yellow Globe, Red Wethersfield, Southport Red; Yellow, and White Globes, Brigham Yellow Globe, and Yellow Globe Danvers are listed (1) as strong onions and may be blended with the first mentioned varieties to make a satisfactory product. The Sweet Spanish and similar types of onions are too mild in pungency for dehydration purposes. The Australian Brown (Oregon Brown or Buckskin) onion yields a bitter flavored dried product which is not acceptable.

(1) "Descriptions of Types of Principal American Varieties of Onions" -USDA Misc. Pub. No. 435, Sept., 1941, Washington, D. C.

PREPARATION:

Onions should be thoroughly washed and cleaned to remove soil and foreign material. The outer discolored and paper-like layers, as well as the root base and tops, should be removed.

The onions should be cut into slices approximately 1/4 inch in thickness and the slices should be kept intact as far as possible. The sliced material should not be held more than two hours prior to dehydration.

PEELING AND TRIMMING LOSS:

Waste will run from 11 to 13%.

TRAYING:

The sliced onions can be spread on the drying surface at the rate of 1-1/4 to 1-1/2 pounds per square foot.

DRYING TEMPERATURES:

Finishing temperatures should not exceed 140° F.; on some varieties the finishing temperatures should be lower.

MOISTURE CONTENT:

The moisture content of the finished product must not be over 4% when packed ready for shipment.

YIELD:

The yield will be from 6 to 8%, based on the fresh unprepared product.

Detailed specifications covering purchases are issued by the Office of the Quartermaster General of the U.S. Army and by the Agricultural Marketing Administration of Washington, D. C.

If further detailed information is desired, inquiries should be addressed to

The Dehydration Committee
Bureau of Agricultural Chemistry and Engineering
U. S. Department of Agriculture
Washington, D. C.

or to

The Dehydration Committee
Bureau of Agricultural Chemistry and Engineering
U.S. Department of Agriculture
800 Buchanan Street
Albany, California